SUPPLEMENT.

LINERUS DEIEN BUT OF THE MINISTER FORENTE.

he Mining Immal,

COMMERCIAL GAZETTE: RAILWAY FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1469.—Vol. XXXIII.]

LONDON, SATURDAY, OCTOBER 17, 1863.

[JOURNAL] STAMPED.... SIXPENCE. UNSTAMPED. PIVEPENCE.

THE COAL FIELDS OF NEW SOUTH WALES.

We remarked in the Mining Journal of April 11 that Mr. John Mackenzie, in conjunction with the Rev. Mr. Clarke, was preparing a section, which it was hoped would convince geologists in the Old Country of the incorrectness of Prof. McCoy's statements that the New South Wales coal fields are of the colitic formation—statements which are considered to have done the colliery interests of the colony material injury. We have now before us the sections alluded to, which are admirably executed in chromolithography, and published at 51. 5s. the set. For the convenience of our European readers, who may desire to possess copies, we have undertaken to supply them from our office. The order of superposition in which Mr. Mackenzie places the coal seams is as follows:—First, the Newcastle seam, including the A. A. Company's, the Coal and Copper Company's, the Waratah, the Wallsend, and the Minmi, all of which he considers identical; secondly, the East Maitland; thirdly, the Tomago, which is of about equal age with the Alnwick or Four-mile creek measures; fourthly, the Morpeth; and, lastly, the Stony Creek. Of the vastness of the coal basin in the Hunter Mr. Mackenzie speaks in great admiration, and also of the fact of the seam being apparently less disturbed than in the English coal fields. It appears that the following genera of fossil plants have been determined and found distributed, variably as to species and deposits, throughout the beds (where they have been already proved), from the No. 1 or Upper Coal seam, shown on the sections of the Newcastle measures, to No. 11, now worked at Tomago, and to the No. 13 formerly worked at Morpeti (where bellerophon, crinoidal remains, pectens, a very large pachydomas and spirifers were found associated with them in a coarse sandstone, lying between the seams of coal numbered 12 and 13), and some of them are found below the coal seams at Stony Creek, in the midst of and below beds of marine fossils of undoubted palæozoic age:—Sphenophyllum, vertebraria (? roots) clasteria, clotperis, eyelopteris, Gangamopteris, sphenopteris, pecopteris, Neggerat kenzie, in conjunction with the Rev. Mr. Clarke, was preparing a section, which it was hoped would convince geologists in the Old Country of the system of Europe.

The Newcastle Measures are shown in the sections to the depth of over 375 ft., the strata occurring in the following order:—

Coto ini mo summ occurring .	m tone some und eranes
Surface	Oft. 0 in.
Soil and clay	
COAL) (
Fire-clay No. 1 seam {	2 9
	4 6
Dark fireclay with ironstone band	
Sandstone and shale with a few in	ronstone hands 55 7
Very hard conglomerate	
Dark sandy shale	
Hard conglomerate	
Hard sandstone with shale parting	
White metal	
Coat, with numerous shale partir	
COAL	
Fireclay	
COAL (Burwood seam, worked by	Coal and Copper Co.)
White metal and clay (varying fr	
Chert rock with shale partings (se	
COAL	f 2 3
Grey metal	1 0 8
COAL	0 9
Metal > No. 3 ser	am (0 3
Coal and shale	0 7
Blue shale	3 0
Coar and shale	(0 6
Grey rock, sometimes grey post, z	netal, and shale 60 0
Shale (3 in. coal))	f 2 3
COAL	2 2
Fireclay No. 4.	
COAL or Dirt	
· Shale seam.	0 8
COAL	2 0
Coal and shale	(8 e
Dark shale, with partings of coal	6 6
Shale and metal, with several iro	natone bands 11 6
Hard grey freestone	
Dark shale with ironstone bands.	2 0
Coal (only 1 ft. at Wallsend) Dark fireciay	(Va 5 3 0
Dark fireclay	(No. 0 seam) 0 7
Gray gritatone	2 0
Hard grey freestone (generally of	onglomerate) with coal pipes } ao
in the lower part	
Dark metal, or shale	10 0

identical.

They are inclined to think that the ALNWICK or FOUR-MILE CREEK MEASURES are the next known workable seams of coal, lying at no very great distance below the 300 feet of shale. They are of opinion that these strata and seams of coal lie either a short distance above or a short distance below the Tomago workings, and are inclined to think that they lie above in the following order:—Below the sandy shale there is

1 foot 6 inches of white, indurated, tough clay, then comes the Alnwick and Woodford 6-feet coal—the highest seam worked at Four-mile Creek; and below these there follows:—

The state of the s		
Sandy shale	4 ft.	0in.
Coal	2	4
Soft sandstone		0
Black shale with coal		0
Sandy shale		0
Black shale		6
Sandy tough clay	8	0
COAL (No. 8 seam)		0
Sandstone and shale		0
Coat (No. 9 seam)	35	PL .

The No. 8 seam is the Alnwick and Woodford 8-ft. coal, which is the lowest seam worked at Four Mile Creek, and No. 9 seam is the coal worked by the Hon. A. W. Scott.

The TOMAGO MEASURES are shown from the white sandstone and blue clod, the thickness of which is 47 feet. Then follows—

١,	the thickness	of which is	17 feet	Then	follows—	
	Shale					3ft. 0in.
	Grey post with	shale partings		*******		30 0
	Coal	**********				0 3
	Grey post with	shale partings.			***********	100 0

	Grey post with					
	Coal					
	Grey post with					
	Coal	**********			**********	0 ft. 6 in.
	Grey post with	shale partings.				26 0
	Coal					
	Grey post with					
	COAL)	(2 0
	Clayband	No. 10 seam	2			0 8
	COAL	1				4 4
	Grey post with	shale partings.				20 0
	COAL (No. 11 as	am)				3 3

Coal	0ft. 4 in.	Indurated clay	0 ft. 6 in.
Blue rock		Coal	1 5
Blue and white stone	5 0	Freestone	8 0
Indurated clay	1 0	Coal	1 3
Coal	0 6	Freestone	16 0
Indurated clay	1 0	Blue gravelly rock	2 0
Coal	0 6	Blue and white rock	
Indurated ciay	2 0	Indurated clay	2 0
Coal	0 8	Coal	1 6
Indurated clay	0 10	Indurated clay	1 0
Coal	1 0	Blue and white rock	33 6
Indurated clay	1 6	Indurated clay	
Coal	1 0	COAL (No. 13 seam)	5 6
Indurated clay	1 2	Indurated clay	-

the control of the co

As at SITTLE DATE.	65 5 65				
With well-rounded	pebbles	****************	4f	. 0 in.	
COAL		***************	8	9	
Shale and coal	No. 14 seam	*************	1	8	
COAL		****************	1	2	
		eaves and stems abur		0	
)		0	
		***************		0	
		**************		0	
CANNEL COAL		·	2	3	
Stone parting	. No. 16 stam	******************	0	3	
COAL		· · · · · · · · · · · · · · · · · · ·	1	4	
gerathia	***********	theca, and leaves of E		6	
		***************		0	
Ironstone band		************	1	6	
Conglomerate	************	***************	4	0	
COAL (No. 17 seam)		***************	3	0	
Blue glod, with glo	sopteris leaves.	**************	5	0	

These sections, the authors remark, are only intended to show the relative position of the different coal seams proved at and near Newcastle, the number of which will, doubtless, excite surprise. There is coal there to last for generations to come. The district remains, comparatively speaking, unexplored, but new mines are opening out very fast. In the latter part of July Mr. Mackensie went over to inspect the Fitzroy Iron and Coal Mines, about 40 miles from Wollongong, and situated on the high road from Sydney to Goulburn. The company are busy erecting a forge, smelting furnace, and workshops, and in a couple of months they hope to be sending iron down to Sydney. They have two excellent seams of coal for smelting purposes, one anthracite and the other a splint coal. The anthracite is the top seam of coal, 3 ft. thick, with a fireclay floor 8 ft. thick, from which they are making some splendid fire-bricks. The splint coal is 99 ft. lower, and is 5 ft. in thickness. The iron ore lies about 150 ft. above the anthracite coal, and is proved to be upwards of 30 ft. in thickness, 9 feet of the upper part of the bed of ore producing 85 per cent. of iron, and the lower part, which is honeycombed, produces from 20 to 25 per cent. The measures are very regular, and dip south 45, and west 1 in 17, and range over a large area. There appears to be every prospect of it now being a paying concern.

which some terms Thunder-axes, but they make small show of any profitable use. Heither were the Romanes ignorant of this trade, as may appears by a brases Coyne of Bonsticar's, found is one of these workes, and fallen into my hands: and perhaps yader one of those Flautants, the Iewish workmen made here their first arrivals. By whom were those ancleat mines on Lake Superior wought? Col. Whittlesey says certainly not by the present Indian race. They have no traditions relating to them. They have no idea of digging for copper. They have proved themselves utterly incapable of fashloning, from their own resources, copper implements in any way resembling the perfectness of the ancient appetieness. Nor have the Indians of Lake Superior any tradition respecting the ancient miners of that country, just as what we called the aborting in the source of this lower country had no traditions respecting the mound builders of Ohio. From the growth of the trees in the old pits, and other indications, Col. Whittlesey is inclined to put the abandement of the miners at a distance of at least 500 or 600 years ago. Who were the ancient miners? Col. Whittlesey is disposed to consider it not improbable that they were octemporary, if not identical, with the mound builders of Ohio. Their mine works were evidently carried on in aummer only, being mere open cuts, impossible to be worked in the rigour of a Lake Superior winter. It is probable that they had better means of transportation than the bark canoes of their less civilized successors. They might have come in the spring from the country of the mound builders in Ohio in vessels carrying supplies, and returning in the autumn with the proceeds of their labour and the bodies of those who filed, for no graves or funeral mounds of a date coeval with the mine workings have been found. Col. Whittlesey says:—

"The mound builders consumed large quantities of copper. Axes, acies, chiesle, and ornamental rings are so common among the relics in Ohio as to leave no doubt on this subject. We know

SALES OF LEAD ORES.

Wheal Frank Mills				-						
Mines	LEAD ORES SO	LD FOR T	HE	QUARTER	ENDI	NO BI	CPTEN	BEI	1, 1	868
Isle of Man	Mines.				Tons.		A	mou	nt.	
Isle of Man	Minera				.1635		£21	,711	13	0
Taliargoch. 421	Isle of Man	*********			. 480		9	,235	0	0
Rhossamor	Talargoch				. 421		5	968	0	9
Dyliffe	Rhosesmor	*********			. 279			,998	18	6
Wheal Mary Ann	Dyliffe	********			. 863		4	993	14	6
Cwmystwith 350 4,423 15 0 East Darren 237 8,737 4 6 Great Laxey 200 3,700 0 0 Wheal Frank Mills 260 3,253 0 0 Frongoch 240 3,019 0 0 Cwm Erfin 180 2,387 2 6 Glogfach 180 2,789 5 6 Cargoll 161 2,322 11 1 East Logylas 182 2,279 2 6 East Logylas 183 2,279 2 6 East Logylas 180 2,776 10 0 East Logylas 180 2,776 10 0 East Logylas 180 2,776 10 0 Eryn Gwleg 140 1,838 5 0 Llangynog United 151 1,834 5 0 Elangynog United 170 1,452 0 0 Eryn Gwleg 170 1,203 16 0 Elangynog United 170 1,452 0 0 Eryn Gwleg 170 1,203 16 0 Elangrhog United 170 1,452 0 0 Elangrhog United 170 1,452 0 0 Elanerchyraur 91 1,203 16 0 Elanerchyraur 91 1,203 16 0 Elanerchyraur 85 1,675 13 0 Elanerchyraur 1,600 10 10 10 10 10 10 10 10 10 10 10 10 1	Wheal Mary A	nn			. 190		4	,777	5	0
East Darren 237	Cwmvatwith				. 350		4	423	15	0
Great Laxey 200 3,700 0 0 3,700 0 0 7 Wheal Frank Mills 260 3,253 0 0 Frongoch 240 3,019 0 0 Cwm Erfn 180 2,387 2 0 Glogfach 180 2,789 5 6 Cargoll 161 2,322 11 0 East Logylas 180 2,779 5 6 East Logylas 181 2,279 2 0 East Logylas 182 2,279 2 0 East Logylas 182 2,279 2 0 East Logylas 180 2,776 10 0 East Logylas 180 2,776 10 0 East Collection 190 1,679 10 1,679 10 0 East Chiverton 190 1,679 10 0 East Chiverton 190 1,679 10 1,679 10 0 East Pant Du Gareg StlvEr-LEAD ORE. BLENDE Minera Great Retallack 98 249 18 84 16 East End East East East East East East East East	East Darren				. 237					6
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Frongoch	Wheel Frank N	tilla			. 260				0	0
Cwm Erfn 180 2,387 2	Frongoeh				240				0	0
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Bryn Gwiog	Macayanfo				180					
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SALES OF BLACK TIN.			
BLACK TIN SOLD FOR THE QUARTER ENDING SEP			863.
Mines. Tons.	Amou	at.	
St. Day United	£7,266	8	6
Great Wheal Fortune 92	7,090	17	0
Great Wheal Vor 851/4	6,192	10	1
Great Work 751/2	5,791	13	5
Great Wheal Busy 7914	4,897	6	4
Wheal Grylls 63	4,268	8	5
Pedp-an-drea 62% 62%	4.204	14	7
Wheal Kitty (St. Agnes) 58%	3,978	17	10
St. Just United 4414		0	0
Par Consols		9	8
West Fowey Consols 3614		18	6
Leeds and St. Aubyn 1712		9	0
North Roskear 1614	1,055	9	
West Beam 14%		15	4
East Lovell		12	6
Wheal Uny 1434		10	6
Prosper United 1156		8	0
Gurlyn 10%		18	0
		16	8
		10	î
Charlisten Waters		2	0
		3	0
		9	6
		3	0
	362	5	
North Desert			0
North Basset		16	7
		.4	8
Bottle Hill 3	204	15	0
North Jane 214		13	0
West Par 2%	125	10	0
Polhigey Moor 134		17	0
Trumpet United 15		13	0
Bag Tor 14	80	11	7

IRON PYRITES.—The following is Mr. R. Hunt's summary of the pro

ion of British Sulphur Ores in the			52:	_			
CornwallTons	14,649	9	8		£12,867	12	5
Devonshire	1,305	19	1		892	0	11
Cumberland	1,805	1	0		1,712	5	11
Northumberland and Durham	3,500	0	0		1,700	0	0
Yorkshire	3,450	0	0		1,275	0	0
Lancashire	2,670	0	0		1,820	0	0
North Wales	1,869	0	0		891	0	0
Ireland	69,184	0	0	*****	37,555	16	0
Total in 1862Tons	28,483	8	0		£58,213	15	3

DELIVERED AT HAYLE FOUNDRY.

on the day on which the order is given; and it must be distinctly understood that	
orders received here without any enquiry as to price, will be understood to be for goo	đ
of the first quality, and at these prices only. Accounts not paid within six months, su	b
ject to interest at the rate of 5 per cent. per annum Oct. 1, 1863.	
CAST IRON.	
Cylinders, cases, covers, pistons (plain), piston caps, air-pumps, and covers, for	

	Cylinders, cases, or	names brosom	a (hamana).	braras	· cabata	or Seremal	had mine on	. 416 5 20		-
	engines under 80								. £1	8
		e aforegoing								
	Metallic pistons, a		ize, viz.,	to 30	inches.	******		er inc		0
	Ditto	ditto	31 to	40 in	ches	******		99	1	2
	Ditto	ditto	41 to	50 in	ches			99	1	4
l	Ditto	ditto	51 to	80 in	ches	******		99	1	5
١	Ditto	ditto					*******	99	1	10
	Nozzles, 5 cwt. an							er cwi		15
	Ditto above 5 cv							99	1	10
	Cylinder bottoms							99	1	2
	Steam and eductio	n pipes						99	11s.	to 1
	Feed ditto							99	10s.	to 1
l	Beams, cast open)	*****		99		12
	Ditto, cast close		ditt				*******	10	0	16
ı	Gudgeons, troughs	, shafts, bea	rings an	d top	blocks,	sockets	, saddles,	-		
ı	and stamps' axis	08						22	0	11
ı	Gudgeons & shafts	turned, bear	ring & to	p bloc	ks, star	nna' axl	es, fitted.	**	0	14
١	Fly wheels (cast-	ron only)						99	0	11
ı	Centre pieces for v	wheels, capst	ans, &c.				*******	22	0	13
l	Ditto, hored								0	16
l	Spur wheels, 1 cw	t, and above	(by own	patte	rn now	here)		91	0	13
l	Ditto, from 56 to 1								0	15
ı			Ditto !	pared,	3s. extr	na.				
ı	Bevil ditto and m	ortice							0	15
ı	Ditto, from \$6 to 1	112 lbs						99	0	17
I	Ditto, bored and fo								20s.	to 5
۱	Cranks above 5 cv								0	11
l	Ditto under 5 cwt	8							0	13
ł	Ditto, bored	*********				******			18s.	to !
	Hot water claterns								0	17
	Manhole branches	and doors							0	13
	Ditto, faced								0	16
	Sieepers and fire t								0	7
	Fire-door frames,									10
۱	Dampers and fran								0	
ı		to cast clos								10
١	Boller stands								i	
١	Valves, seats, and								i	11
١										10
١	Air pipes, 4 inche									0 1

	Boller stands	99	0	. 8
,	Valves, seats, and clacks	11	0	11
	Ditto ditto turned	**	0	10
	Air pipes, 4 inches diameter and 6 feet long	each	0	1
	Capstan and whim shieves, all sizes, heavy patternper	cwt.	0	1
	Flat rope shieves	**	0	15
	Ditto bored	99	0	1
в	Tram wheels	**	0	1
	Ditto bored	**	0	1
	Tram saddles	22	0	1
	Stamp heads without shanks and grounds	**	0	1
	Ditto with short ditto of fagotted iron	**	0	
	Ditto with long ditto of fagotted fron	**	0	
	Cams for stamp axles	22	0	
	Bucking plates, open	**	Ö	
	Ditto, close	**	0	
	Crushing rolls, cast in sand	**	0	
	Ditto, cast in chilis	**	0	1
	Mandrills	**	0	i
	Ditto, turned	99	1	
	Steam boxes, bored and turned		î	
	Stamp guides	99	â	
	Stamp guides	93	ě	
	Bushings for stamp guides	99		
	Plates for whim cages	99		: :
	Ditto bored	**	0	4
	Foundation plates and wall plates	20	- 1	2 2
	Ditto ditto planned and fitted	99		, ,
	Plain pumps and windbores, 9 ft. long, 4 in. bore and above, best iron*	99	0	,
	Short ditto ditto ditto			

Plain pumps and windoores, 9 it. long, 4 in. bore and above, best ironflow ditto ditto ditto
Working barrels, above 4 inches diameter ditto
Ditto 4 inches diameter and under ditto
Plunger, knee, and H pieces, and clack-seat pieces, 4 feet long and under (if not bored, 2s. less)
Doors and dead flanges for ditto ditto
Ditto, cast clos ditto
Clack-seat pieces, with doors ditto
Plenger poles for shaft work, 6 inches diameter and above ditto
Ditto, under 6 inches, or above 10 feet long ditto
Stuffing boxes and glands, bored ditto
These articles, made of second quality iron, at prices as may

WROUGHT IRON.				
Plain cylindrical boilers, made of best plates and best rivet ironper Ditto of second quality, as may be agreed.	cwt.	£0	19	6
Whim kibbles, hammered from	99	0	19	0
Ditto, rolled iron	10	0	17	6
Winze kibbles	each	0	10	0
Tapered rod plates, hammered from scraps, 6 inches wide and undert per	cwt.	0	17	0
Ditto, 7 in. widet	**	0	18	0
Ditto, 8 in. widet	**	0	19	0
Ditto, 6 in. wide and under, fitted in lengths, and holes bored completet	10	1	0	Õ
Ditto, with square holes complete?	**	1	1	0
	**	1	1	Õ
	**	1	9	Õ
	**	ī	9	0
	**	î	3	ő
Miners' shovels, hammered	99	î	8	ň
Steel point ditto, hammered	29	9	8	ő
Fiat thread tops and nuts (lathe cut)pt	22 Ib	ő	0	6
Valve ironper	cwt.	0	18	0
Faggoted iron, single	owe.	0	13	ŏ
Ditto, double	99	Ö	16	0
Piston and air-pump rods, completeper	19. "	**	10 10	va.
Chains made of Knight's extra refined iron, 11-16 inch and ¾ inchper	10.	u. I	10 10	rd.
Ditto ditto % inch	CWT.	-		U
Ditto ditto % inch	44	- 1	- 7	- (

	There		HILL		24 HIGH						99	
	Ditto		ditto		9-16 incl	h						1
	Ditto		ditto		34 inch						11	1 1
	Ditto		ditto		7-16 inc	h					**	1 1
	Ditto		ditto		% inch						99	1 1
	made of	S.C. iron,			L. less ; of	cha	rcoa	iro	m, (8s. p	er cwt.	ext
Winze ki	bble plate	68									99	0 1
Best boil	er plates,	angle iron	, rivet	iron, an	d carring	e pla	tes				**	0 1
		nmered										0 1
Hoop iron		*******									**	0 1
Sheet iro	n, single	*******		******							**	0 1
Ditto	double			******							**	- 1
Ditto		*******									99	
Nail rods												0 1
											11	0
Ditto, bes	t crown.										99	0 1
Ditto di	tto round	and some	Te 9.1	6 and 1/	Inch		****				99	0 1

Prinking a	OWPLOT LAN	med custn i	ron, 78 men		***********	11
Ditto		ditto	9-16 and	% inch		,, 1
Ditto		ditto	7-16 inch			n 1
Ditto		ditto	36 inch			1
		† If hamm	ered from rol	led bars, 3s	. per owt. less.	"
				ILS.		
Spikes				********		er cwt.
3s. 4d					***********	
2s. 6d				*******	***********	**
28						99
28 lb. flat	points		**********		************	per M.
22 lb. ditt	0		**********		*************	
18 lb. ditt	0		**********			
9 lb. ditt	0			********		
21/6 lb. d	itto			********		
6 inch pai	ent rose	********	**********	*******		er cwt.
5 inch	ditto .					**
416 inch	ditto	*******			************	**
4 inch	ditto				************	99
314 inch	ditto					99
3 inch (28	lbs. per	M.)				per M.
2% inch (20 lbs. p	oer M.)	********	*******		
21/4 inch (17 lbs. p	oer M.)	**********		*************	
21/4 inch (12 lbs. p	oer M.)				
2 inch (10	lbs. per	M.)				
Cut clasp,	, 3 inches	s and above				er cwt.
Cut lath.	l inch					ner M.
Iron box	pails, cor	antersunk,	1 lbs	*******		
Compositi	on ditto					per 1b.

Baltic pine an	d Savannah 1	TIMBER. pitch pine rod timber of all lengths per for	ot 1
Ditto	ditto		1
Ditto	ditto	plank	- 1
Balk, Dram ti	mber	***************************************	- 1
Ditto, Longson	ind ditto	***************************************	
American Que	bec vellow p	ne	- 1
Ditto	red pine.	, 30 feet and under	
Ditto	red pine.	above 80 feet	
Ditto	red pine.	very large pieces	
American Low	or Port red r	pine	- 7
Birch, Quebec		***************************************	
American elm	. Onehee	***************************************	- 1
English ditto	1 400000		- 1
Oak, under 20	fant		
Ditto 80 to 50	foot		1
Ditto, 50 to 50	foot	***************************************	- 4
Titto, 60 to 60	foot		
Tolate 60 to 80	Ices	***************************************	- 1
Elemen (heet)	and above	***************************************	_]
Wieses (nest I	nake) of ordi	nary thicknessper inch	0
1	Deal and Am	erican oak plank, battens, &c., always in stock.	

	I That but to a start and beautiful from Y Williams and the start and th	-
J	Best blister steel, each bar marked hoop L Wilkinson, wartd. gennineper cwt. £2	10
1	Best borer steel, good quality 9	- 5
1		18
J	Cast chisel and tap steelper lb. 0	0
1	Cast steel hammers	

Cast steel hammers			
BRASS.	1	Per 1	b.
BEASS. Best composition metal plunger poles, & linings for air pumps, bored & turns	d £0	1	10
Covers, buckets, &c., bored and turned	. 0	1	6
Boaring and bucket brasses	. (1	9
Ditto ditto . bored	. () 1	9
Working barrels, bored	. () 1	10
Steam valves and seats	(3	7
Ditto, double beat	() 2	9
Bushings above 7 lbs	. () 2	7
Small brasses and bearings for parallel motion	. V	ario	as.
MISCELLANEOUS ARTICLES.			
Cordage, round ropeper cw	t. £:	8 \$	0
Ditto, flat ditto	1	2 10	0

ı	Cordage, round ropeper cwt. d	E3	8	0	ı
1	Ditto, flat ditto	2	10	0	j
H	Ditto, white yarnper lb.	0	0	-	í
	Ditto, hemp.	0	-1	584	ı
	Lead, sheet, per entire rollper cwt.	1	10	19	ì
н	Ditto, ditto, part of ditto	1	13	- 0	į
۱	Ditto. pig		-	-	
1	White ground lead, exclusive of kegs, not returnable	1	4	0	ì
١	Refined red ditto	1	14	. 0	ì
þ	Tallow, Y. CFiu	cts	inti	ng.	
)	Oil, olive (Galipoli), linseed, rape		10	-	
١	Tar		-		
þ	Pitch		10		
	Slate water tanks, 300 gallons and upwardsper gallon (Ditto, 250 gallons, 31/4d.; 200 gallons, 31/4d.)	0	0	3	į
	Laths, heart Norway, 4 feetper bundle	0	1	-	å

	Laths, heart Norway, 4 feetper bundle	0	1	6
) ((American, & lect	0	1	6
) (0	1	- 3
	Ditto, sap Memel, 4 feet	ñ	ī	9
	Slate, scantle (various prices)per M		-	
9	Course formare francos burealesses and a second sec		_	
)	Lime, for 1 ton or upwardsper ton	0	17	
	Bricks, Bridg waterper hundred	0	5	0
)	Ditto, Flintshire	0	10	0
	Ditio, Stourbridge	-	9.0	
,	Litto, Ctourorioge accommence and accommence and accommence by	U	10	u
)	Pantiles	0	10	0
0	Grindstonesper cwt	. 0	6	0
0	Window glassper crate		_	-
	And Colotton groups of good availant			
v	Anti-friction grease of good qualityFi	BCH	inti)	ag.
0	Ditto of inferior quality			_
×	Anytis vices amitha boliows hinges looks and all other descriptions of iron	,	9	

Connish Pumping Engines.—The number of pumping-engines reported for Aug. is 30. They have consumed 1769 tons of coal, and lifted 12-4 million tons of water 10 fms. high. The average duty of the whole is, therefore, 47,400,000 lbs. lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average data.

oal	
C	argoll Mines-Michell's 72 in
C	arn Brea—76 in
C	ook's Kitchen-50 in
C	rane—70 in
1	olcoath — Harriett's 60 in
G	reat Wheal Busy—Harvey's 85 in
G	reat Work-Leeds' 60 in.
7	orth Roskear-Doctor's 70 in.
	forth Wheal Crofty-Trevenson's 80 in
8	outh Wheal Frances—Marriott's 75 in
8	tray Park-64 in
3	reloweth-60 in
1	Vest Caradon—Elliot's 50 in
3	Vest Wheal Seton—Harvey's 85 in
1	Vheal Ludcott—Willcocks' 50 in
1	Vheal Seton—Tilly's 70 in.
1	Vheal Tremayne—Micheli's 60 in

IRON

PIG

they are, where they are working, and the extent of such workings, and I am sure that the information I shall furnish you will be well worth the serious attention of all who desire to carr a competence by homest labour.—St. Louis, Missouri, Sept. 21 desire to carr a competence by thouse tabour.—St. Louis, Missouri, Sept. 21 desire to carry the serious attention of all who desire to carry and the the serious attention of all who desire to carry and the serious attention of all who was adverted to lately at Falmouth by Mr. C. Fox, cannot fail, I think, to be interesting to intelligent miners. And I confess that I myself, though not a miner, do feel a lively interest in it, for more than one reason. It is a prodigious undertaking to make a tunnel 7½ miles, or nearly so, it length, at a great height above the level of the sea, with 6000 feet of mountain over it, as at Monte Centelo, as it is called by Italians; and all the boring is being done by hydraulic pressure. To cast some additional light upon this grand work, I have translated the accompanying paper from an Italian publication of the tunnel, so that the reader may be sure of their exactures and prefositon:—

THE PERFORATING MACHINE IN ACTION.—The design which we present to the translate of the tunnel, so that the reader may be sure of their exactures and prefositon in tunnel ing the Alps. The carriage which carries the perforators is called affusta; upon which is placed at one time from eight to twelve machines; these can take, within the limits convenient to the nature of the works, the directions parallel, divergent, or convergent, upward, downward, or sideways, and in a manner to open in the rock a passage so much greater in width and height than the affusta Itaelf as may be sufficient to a single flexible tube grant dupon the sure that the sure of the sure than the sure of the sure than the sure of the sure than the sure of the sure of

Large Hammer Casting.—At the Ouseburn Engine Works there has been cast a large frame for a steam-hammer, on Mr. Robert Morrison's patent. The pit for the same was 45 ft. long, 24 ft. wide, and 12 ft. deep, and required about 55 tons of metal, 28 tons of which were held in a large air-furnace erected for the purpose, and the remainder in two ladies. The running of the metal cocupied five minutes and nine seconds. The whole of the operations were under the able management of Mr. James Turnbull, and were successfully carried out. A number of ladies and gentlemen were present during the casting.—Newcasile Daily Journal.

	1						_									-				-					
	1862.	**************************************	58 0 57 6 48 0	114,500 77,000 26,000 15,000 85,000	300,000	570,000	980,000	1,080,000	000'000	100,000	175 120 135	188,000	6 12 6	0 8 6	28. 28. D. C. 29. C.		1882.	PRODUCTION.	Tons. 697,392 113,005 133,005 522,018 134,405 410,220 147,120 147,120 15,471 33,719	2,868,469	3,943,469	VALUE.	£10,175,965 822,407	1861 1862	5 16 0 6 17 8
	1861.	4.44.44.44.44.44.44.44.44.44.44.44.44.4	49 3 62 0 47 0	104,500 61,500 25,600 115,500 51,500 8,500	267,000 828,000	595,000 845,000	940,000	1,040,000	290,000	100,000	175	122,500	0 0 4	0 8 0	53 p. c.		18	FUR- NO. NACES IN BUILT, BLAST.	118 88 87 7 88 88 88 88 88 88 88 88 88 88	705 4861 175 120	880 5561	TONS.	1,458,748	1859 1860	6 12 6 6 5 0
	1860.		58 6 61 6 49 3	79,500 51,000 15,000 10,000 92,500 7,000	255,000 318,000	573,000 842,000	915,000	1,000,000	490,000	100,000	175 121 181	120,000	. 9 4 4	9 8 0	0 0 0 0 0 0 0 0 0 0 0 0		1861.	PRODUCTION.	619.946 1142.966 1142.966 1164.718 1164.700 886.600 1147.71 117.800 17.780 17.800 17.800 17.800 17.800 17.800 17.800 17.800 17.800 17.800	2,763,390 1,040,000	3,803,380	VALUE.	£9,398,711 726,956	1857 1858	7 13 9 6 12 6
	-				· (F	_	-	1		-			7	0			18	NO. IN BLAST.	651 24 24 114 114 114 28 28 28 28 28 28 28 28 28 28 28 28 28	4451	568}	NB.	1,289,078	1858	8 20
	1859.	*85 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	51 10 59 0 47 0	77,819 51,845 10,470 9,658 86,964 8,996	254,247 814,968	569,200 841,000	910,200	860,000	380,000	20,000	174	100,000	7 7 8	0 8 8	20.0 18.8 20.0 18.8 20.0 20.0 20.0 20.0 20.0 20.0 20.0 2			FUR- STION. NACES BUILT.	24. 1111 24. 24. 24. 25. 25. 25. 25. 25. 25. 25. 25. 25. 25	000		To To		1854 1855	9 12 6 7 18 9
	1858.	#2222222222222 #200004m00m4+004	54 5 60 0 52 0	121,304 52,331 12,294 13,389 60,408 6,160	274,471	288,000	840,000	000,086	340,000	150,000	169 199 181	90,000	7 10 0	0 8 0	8 p. c.		1860.	NO. IN . BLAST.	Tonas. 100 69 686 679 686 679 686 679 686 679 686 679 686 679 686 679 686 679 686 679 686 679 686 679 686 686 686 686 686 686 686 686 686 68	458 2,889,752 131 1,000,000	589 3,889,752	VALUE.	814 £11,168,084 153 866,821	1862 1858 1	76 8 60 9
	12	4400000000481	n v v	48 58 74 8 87 74 8	22.20	22	000	0.	9	9	200	0	0	0	0 0			FUR- 3 NACES BUILT. BL	112 123 124 125 125 125 125 125 125 125 125 125 125	706 45 175 13	881 58	TONS.	1,408,914	1861 186	9 00
	1857.	- 12889334888888888888888888888888888888888	8 8 8 8	188,674 67,718 12,625 12,647 57,544 57,528 5,289	294,232 283,768	812,000	840,000	910,000	190,000	70,000	164 138 128	100,000	8 10 0	* 0	8 p. c			PRODUCTION: N	Tons. Tons. 64,366 64,366 1180,356 1180,356 146,389 118,890 118,890 118,890 118,890 118,890 118,890 118,890 118,890	2,752,854 7	3,712,354 8	VALUE.	£11,608,605 805,832	1850	10 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °
	1856.	425823233232 2728232323232 27282323232323	73 · 6 81 · 6 65 · 6	100,540 68,580 6,580 13,098 69,807 6,185	258,738	505,000 325,000	.830,000	880,000	190,000	10,000	159 117 126	125,000	0 0 0	8 7 0	55 p. c. c. d. d. c.		1859.	NO. IN BLAST.	Ester in second and a second an	136	603	TONG.	1,440,447	1848 1849	6 18 9 5 12
	χć	45000005000500	6 9 9	478 627 69 711 57	000	000	90	80	00	99	154	90	9	4	00	1		FUR- NACES BUILT.	011 04888888 1287 01 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05	696	860	24		1847	9 50
IRON.	1855.	23.23.23.23.23.23.23.23.23.23.23.23.23.2	6 8 8	90,478 67,427 8,769 10,5118 68,671 8,657	244,320	542,000	842,000	823,000	130,000	90,000	e e e	110,000	89	0 4	6 P.	IRON.	1858.	PRODUCTION.	Tons. 459,850 85,850 85,800 181,577 257 186,800 107,000 182,800 107,000 182,800 107,000 182,80	2,580,564 990,000	3,520,564	VALUE.	£10,646,964 589,781	1845 1846	8 11 3 9 2 6
	1854.	**************************************	\$ 8 8 6 8 9	81,628 81,196 8,139 11,862 148,538 8,063	283,903 801,097	585,000	885,000	775,000	150,000	80,000	168 115 115	110,000	0 0 0	0 2 0	5 P. C.	IG	18	S IN IN T. BLAST.	148 22 88 24 3 14 18 24 14 14 14 14 14 14 14 14 14 14 14 14 14	4864	6171	ONS.	1,884,096	1844	5 18 9
PIG	-											H	10	0		H PJ		M. NACES BUILT.	101 383 382 118 120 10 10 130 130	169	825			8 1843	0 4 16 8
SCOTCH	1853.	488888888888888 446048004446840	61 5 81 0 49 0	77,800 28,350 18,500 6,840 180,300 5,830	318,020 316,980	635,000	935,000	710,000	915,000	295,000	144 118 114	120,000	0 0 6	6 8 0	88 p. c.	LIS	1867.	PRODUCTION.	Tons. 157,000 1112,000 1113,000 1134,057 607,286 107,141 28,822 300 11,500 37,049	910,000	3,650,387	VALUE.	748,579	1841 1842	7 89 6 50
800	1862.	*88888884444886 40000000000000000	45 8 77 0 35 6	74,500 18,380 7,400 5,560 112,500 6,130	224,370 210,530	434,900	680,000	770,000	440,000	90,000	143 109 118	000'06	10 0	2 7	2 p. c.	M	- 16	R- NO. IES IN LT. BLAST.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	128 4	. a 626	TONS.	1,507,867	1840	60 60
OE			F- 65		64."	- 41	68						10 1	0	경제	SOF	4	ON. NACES BUILT.	. 103 388 388 311 108 118 20 104 104 104 104 104 104 104 104 104 10	164	7 821			8 1839	8 9 13 0
TICS	1851.	**************************************	40 1 44 9 87 6	55,700 10,850 8,400 8,800 102,400 5,660	192,610	452,700 942,800	695,000	775,000	350,000	80,000	143 110} 114	000'06	70	0 2 6	8 p. c.	ISTIC	.1858.	PRODUCTION.	Tons. 50,770 56,280 56,280 96,580 130,580 777,111 106,723 34,133 47,683	1	3,525,877	VALUE.	2 £12,280,386 8 785,828	1837 1888	8 17 6 9 11 8
TISTIC	0	40000000000	t- 0 8	39,100 10,500 6,700 6,850 67,800 4,180	000	000	00	.000	000	000	92	000	0	6	0.0	A		R- NO. ES IN LT. BLASE	1478 55 1 1478 55 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		4 621	TONS.	1,417,043	1886	8 10 16 8
STA	1850.	**************************************	2 2 2	88 10, 6, 6, 6, 14,	134,710 189,490	824,200 225,800	550,000	680,000	270,000	80,000	-	80,000	5 10	0	80 80 10 10 10 10 10 10 10 10 10 10 10 10 10 1	ST		TUR- TOM. NACES BUILT.			0 784			34 1835	13 6126
	1849.	**************************************	45 6 68 0 41 6	25,600 8,500 6,700 4,280 101,600 6,620	153,200	874,900 225,100	000'009	692,000	190,000	92,000	109	80,000	5 12 6	9 5 0	28 Pr C.		1855,	O. PRODUCTION.	Tons. 100 80 80 80 80 80 80 80 80 80 80 80 80 8	9 2,890,650 1 822,000	0 3,212,650	VALUE.	£8,881,472 198 584,170	1888 1884	6 10 0 7
		ත්ත කත කට කට කට කත ක	4.00	198900	00	90	0	0	0	0	190.00	0	0	7	9 9			FUR- NO. NACES IN BUILT. BLAST.	888 888 888 888 888 888 888 888 888 88		069 09	TONS.	1,076,043	1832	5 18 9
1	1848.	**************************************	44 4 51 0 40 0	48,471 5,859 4,649 4,419 86,000 8,609	162,000 227,800	389,800 200,000	589,800	600,000	96,000	10,000	988	80,000	6 10 0	0 2 7	9. 4 % 8 %			PRODUCTION. NAC	Tons. 73,444 88 88 73,444 89 80,000 81 1104,000 87 1134,800 11,999 7 11,999 7 7 720,000 11 11	2,273,248 596 775,000 154	3,048,243 750	VALUE.	£10,992,828 681,852	1830 1831	6118 6 18
	1847.	47.72.72.23.74.45.00.00.00.00.00.00.00.00.00.00.00.00.00	65 4 77 6 47 0	54,518 24,896 6,266 8,574 82,511 2,800	144,000 227,000	871,000 225,000	596,000	640,000	88,000	66,000	100	60,000	8 22 0	*	11		1854.	NO. IN BLAST.	\$2280 0828 0 : : 0884 0 \$		554 3,04	100.	1,175,880	1828 1829	811.8 7.76
	1846.	286277277777777777777777777777777777777	71 11 80 0 64 0	51,246 85,470 6,086 8,681 21,278 1,259	119,000	376,000 290,000	666,000	000'089	144,000	::	:88		15 0	:	11			FUE- NACES BUILT.	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	568	721	TO	1,	1827	50 9 63 8
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	1845.	244 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 : :	111111	111	11	1	:		***	:8188		9 10 0	***	11				nreNorth Bid	000000000000000000000000000000000000000				1824	6 10 76 18 1
	Monthly Average Price of 3-5ths No. 1, and 2-5ths No. 3 Fig Iron, Lo.b. Glasgow.	Price of Scotch January Physics of Scotch Pobrusary Pobr	Average Price of Year Highest Price	SHIPMENTS: Germany, Holland, Dennark, Sweden, & Norway. France Raly. Salah, Fortugal, and other European Countries United States and British North America. South America, India, Australia, &c	Total Foreign	Total Shipments	Total Deliveries	Computed Make	Stock 31st December	Increase of Stock	dragos Bulit verge Kumber of Furnaces in Blast urnaces in Blast 81st December	Make of Malleable Iron	Average Price of Bars for Year	Average of Miners' Wages for Year	Bank Rate of Discount—Average			DISTRICTS.	Nor thumberland, Durham, and Yorkshir Yorkshire—West Riding Loctoyshire—West Riding Loctoyshire—West Riding Loctoyshire—West Riding North Saufordshire and Worestershire Siouth Staffordshire and Worestershire Rivoyshire Gloucester Somerres and Wilts Northumphon Den bighahire and Flint Brecknockshire Germarkhenshire Pembroteshire Pembroteshire Wommonthshire	Total for England and Wales	TOTAL		rts of Iron of all descriptions, and Iron Wire Steel unvrought	1820 1821 1829 1823 1823 1823 1823 1823	9150 8176 6 50 8 7
L	Mont	The Price Pig Tron 1810 1810 1806 1886 1886 1886	Avera Righer Lowest	German Franco Italy Spain, 1 United South A	Coastwi	든지	F	0	The state of the s	чă	Furnace Average Furnace	Make of	Average	Averago	Bank R.				haale at ; 539 over Hind secarative of 1,000,000, and 1,000 secarative out 545, production 2,100, 100, 100, 100, 100, 100, 100, 10	1823 th	aI		Exports	Average 1	
																			2012	1		EF L			

B

MESSRS. KNOWLES AND BUXTON, CHESTERFIELD,



The PATENT TUBULAR TUYERE possesses GREAT ADVANTAGES over the ORDINARY TUYERES, both for its DURABILITY and EASY WORKING. A cur rest of cold water going direct to the nozzle prevents their destruction, however much then many the exposed to the fire.

We repair them at half the first cost, making them equal in size to new ones, all particularly about the contraction and

THOMAS TURTON AND SONS,

MANUFACTURERS OF

CAST STEEL FOR FUNCHES, TAPS, and DIES,

TURNING TOOLS, CHIECLS, &c.

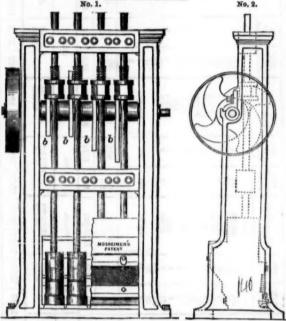
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES,

SHAPTS, and
FORGETGS OF EVERY DESCRIPTION.

DOUBLE SHEE, TEXEL, BLISTER STEEL, STRING STEEL, STRING STEEL, STRING STEEL, STRING STEEL, SOR TOOL MARKED WM. GREAVES & SON. Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.

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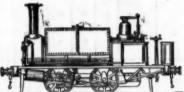
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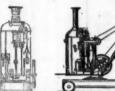
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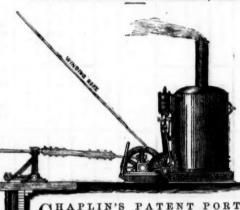
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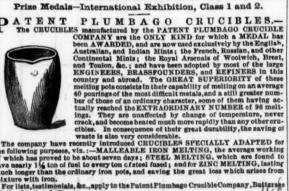
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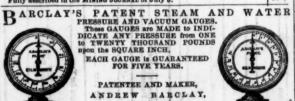
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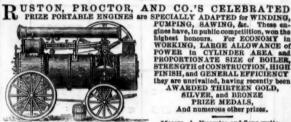
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